

ABSTRACT OF THE DISCLOSURE

A data transmission device transmits a data broadcast using a narrow unused broadcasting band in a digital broadcast, and to record the data broadcast, which has been received, on a receiving side so that the receiving side can play back the data broadcast after a data stream is totally recorded. The transmission device generates a first data stream, which is recorded on a recording medium on a receiving side, and a second data stream including audio and video data, which is transmitted as a broadcasting program. The transmission device multiplexes the first and the second data streams and then transmits the multiplexed data stream. The transmission of the multiplexed data stream is controlled so that a transmission rate for the multiplexed data stream does not exceed the maximum transmission rate, and so that a transmission rate for the first data stream becomes lower than that for the second data stream. A receiving device records the first data stream on the recording medium, and permits the first data stream to be played back for use after the transmission completes.